

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: April 16, 1996
Date Received: April 11, 1996
Project: Acid Tanks, PO #M52947
Date Samples Extracted: April 12, 1996
Date Extracts Analyzed: April 12, 1996

**RESULTS FROM THE ANALYSIS OF PROCESS WATER SAMPLES
FOR IRON**

USING METHOD 6010

Samples Processed Using Method 3005A

Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>Iron</u>
M52947 A (small tank)	20,000
M52947 B (small tank)	19,000
Method Blank	<1

FRIEDMAN & BRUYA, INC.**ENVIRONMENTAL CHEMISTS**

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**QUALITY ASSURANCE RESULTS
FOR IRON BY INDUCTIVELY COUPLED PLASMA (ICP)
(METHOD 6010)
Samples Processed Using Method 3005A**

Laboratory Code: 67838 (Duplicate)

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Sample Result</u>	<u>Duplicate Result</u>	<u>Relative Percent Difference</u>	<u>Acceptance Criteria</u>
Iron	mg/L (ppm)	19,000	19,000	0	0-20

Laboratory Code: Spike Blank

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Spike Level</u>	<u>% Recovery</u>		<u>Acceptance Criteria</u>	<u>Relative Percent Difference</u>
			<u>MS</u>	<u>MSD</u>		
Iron	mg/L (ppm)	1000	112	109	80-120	3

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**RESULTS FROM THE ANALYSIS OF PROCESS WATER SAMPLES
FOR SPECIFIC GRAVITY
@ 15.56 °C**

<u>Sample ID</u>	<u>Specific Gravity</u>
M52947 A (small tank)	1.16
M52947 B (small tank)	1.13

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**QUALITY ASSURANCE RESULTS
FOR SPECIFIC GRAVITY**

Laboratory Code: 67838 (Duplicate)

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Sample Result</u>	<u>Duplicate Result</u>	<u>Relative Percent Difference</u>
Specific Gravity	@ 15.56°C	1.13	1.13	0

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**RESULTS FROM THE ANALYSIS OF PROCESS WATER SAMPLES
FOR ACID BY VOLUME**

Results reported as %

<u>Sample ID</u>	<u>% Acid by Volume</u>
M52947 A (small tank)	7.9
M52947 B (small tank)	7.5

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**QUALITY ASSURANCE RESULTS
FOR % ACID BY VOLUME**

Laboratory Code: 67838 (Duplicate)

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Sample Result</u>	<u>Duplicate Result</u>	<u>Relative Percent Difference</u>
Acid	% by Volume	7.5	7.5	0

KNJ AI
4.11.96
11:35

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Andrew John Friedman
James E. Bruya, Ph.D.
(206) 285-8282

3012 16th Avenue West
Seattle, WA 98119-2029
FAX: (206) 283-5044

April 16, 1996

**INVOICE # 96ACU0416-1
DUPLICATE COPY**

Accounts Payable
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

RE: Project Acid Tanks, PO #M52947: Results of testing requested by Gerry Thompson, Project Manager for material submitted on April 11, 1996.

2 process water samples analyzed for Iron using Method 6010 @ \$35 per sample	\$ 70.00
2 process water samples analyzed for Specific Gravity @ \$25 per sample	50.00
2 process water samples analyzed for % Acid by Volume @ \$25 per sample	<u>50.00</u>
Amount Due	\$ 170.00

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ENVIRONMENTAL CHEMISTS

Andrew John Friedman
James E. Bruya, Ph.D.
(206) 285-8282

3012 16th Avenue West
Seattle, WA 98119-2029
FAX: (206) 283-5044

April 16, 1996

Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

Dear Mr. Thompson:

Enclosed are the results from the testing of material submitted on April 11, 1996 from your Acid Tanks, PO #M52947 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Kurt Johnson
Chemist

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Enclosures
FAX: 382-7335
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